INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/14654

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) :Please See Extra Sheet.
US CL :Please See Extra Sheet.
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 435/69.1, 7.1, 7.2, 7.21, 71.1, 320.1, 471, 325, 334, 358, 361, 365, 368, 252.3, 255.1; 536/23.5; 530/350

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

West US Patent full, STN via medline, caplus, embase, biosis, SEQ ID NOs: 5 and 6 searched against commercial data bases.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X ----- A	EP 0,859,055 A1 SMITHKLINE BEECHAM CORPORATION 19 August 1998 (19.08.98), see abstract, claim 3 and SEQ ID NO:1, also see sequence comaprison "A".	38-39, 42, 45, 102 ---------- 1-9, 16-17, 19-25, 28-32, 35-37, 46, 66-72, 77-87, 89-101, 118-154, 159-168

[X] Further documents are listed in the continuation of Box C. [ ] See patent family annex.

*	Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A"	document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E"	earlier document published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O"	document referring to an oral disclosure, use, exhibition or other means		
"P"	document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search 20 SEPTEMBER 2000	Date of mailing of the international search report 17 OCT 2000
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer FOZIA HAMUD Telephone No. (703) 308-0196

Form PCT/ISA/210 (second sheet) (July 1998)*

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/14654

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X ----- A	GB 2, 312,211 A (THE UNIVERSITY OF SHEFFIELD) 22 October 1997 (22.10.97), see pages 25-28 , also see sequence comparison "B".	38-39, 42, 45, 102 ---------- 1-9, 16-17, 19-25, 28-32, 35-37, 46, 66-72, 77-87, 89-101, 118-154, 159-168

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International application No.
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Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

Please See Extra Sheet.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☒ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
1-9, 16-17, 19-25, 28-32, 35-39, 42, 45-46,102,118-119,66-72, 77-87, 89-97, 99-101, 120-154, 159-168

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/14654

A. CLASSIFICATION OF SUBJECT MATTER:
IPC (7):

C12N 15/12, 5/10; C12P 21/02; C07K 14/47, 14/705; G01N 33/53, 33/566, 33/567

A. CLASSIFICATION OF SUBJECT MATTER:
US CL :

435/69.1, 7.1, 7.2, 7.21, 71.1, 320.1, 471, 325, 334, 358, 361, 365, 368, 252.3, 255.1; 536/23.5; 530/350

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING
This ISA found multiple inventions as follows:

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for all inventions to be searched, the appropriate additional search fees must be paid.

Group I, claims 1-9, 16-17, 19-25, 28-32, 35-39, 42, 45-46, 102, 118-119, drawn to an isolated nucleic acid encoding a human SNORF33 receptor, the encoded hSNORF33 receptor, a vector, a host cell, and a method of making said receptor.
Group II, Claims 1-6, 10-12, 16-17, 19-23, 26, 28-34, 36-38, 40, 43, 102, 118-119, drawn to an isolated nucleic acid encoding a rat SNORF33 receptor, the encoded rSNORF33 receptor, a vector, a host cell, and a method of making said receptor.
Group III, claims 1-6, 13-23, 27-32, 36-38, 41, 44-46, 102, 118-119, drawn to an isolated nucleic acid encoding a mouse SNORF33 receptor, the encoded mSNORF33 receptor, a vector, a host cell, and a method of making said receptor.
Group IV, Claims 47-49, 54-56, drawn to an antisense oligonucleotide capable of hybridizing to hSNORF33 RNA, and a pharmaceutical composition comprising said oligonucleotide.
group V, Claims 47-49, 54-56, drawn to an antisense oligonucleotide capable of hybridizing to rSNORF33 RNA, and a pharmaceutical composition comprising said oligonucleotide.
group VI, Claims 47-49, 54-56, drawn to an antisense oligonucleotide capable of hybridizing to mSNORF33 RNA, and a pharmaceutical composition comprising said oligonucleotide.
Group VII, Claims 50-53, 57-59, 103, drawn an antibody capable of binding to hSNORF33 and a pharmaceutical composition comprising said antibody.
Group VIII, Claims 50-53, 57-59, 103, drawn an antibody capable of binding to rSNORF33 and a pharmaceutical composition comprising said antibody.
Group IX, Claims 50-53, 57-59, 103, drawn an antibody capable of binding to mSNORF33 and a pharmaceutical composition comprising said antibody.
Group X, Claims 60-65, 104-115, drawn to a transgenic, nonhuman mammal comprising a homologous recombination knockout of the hSNORF33 receptor and a method of identifying agonist for hSNORF33 receptor using said transgenic animal.
Group XI, claims 60-65, 104-106, 108-111, 114-115, drawn to a transgenic, nonhuman mammal comprising a homologous recombination knockout of the rSNORF33 receptor and a method of identifying agonist for rSNORF33 receptor using said transgenic animal.
Group XII, claims 60-65, 104-106, 108-111, 114-115 drawn to a transgenic, nonhuman mammal comprising a homologou recombination knockout of the mSNORF33 receptor and a method of identifying agonist for mSNORF33 receptor using said transgenic animal.
Group XIII, Claims 66-72, 77-87, 89-97, 99-101, 120-154, 159-168, to a process for identifying a compounds that bind to hSNORF33 receptor.
Gropu XIV, Claims 66-67, 73-86, 88-96, 98-101, 120-121, 123-135, 136-148, 150-154, 159, 161, 163, 165, 167, to a process for identifying a compounds that bind to rSNORF33 receptor.
Group XV, Claims 66-67, 73, 77-86, 88-96, 98-101, 120-121, 123-135, 136-148, 150-154,159, 161, 163, 165, 167, to a process for identifying a compounds that bind to mSNORF33 receptor.
Group XVI, claims 116-117, to a method of diagnosing a disorder by using a DNA encoding hSNORF33 receptor.
Group XVII, Claims 116-117, to a method of diagnosing a disorder by using a DNA encoding rSNORF33 receptor.
Group XVIII, Claims 116-117, to a method of diagnosing a disorder by using DNA encoding mSNORF33 receptor.
Group XIX, claims 155-158, to a method of treating an abnormality in a subject by administering a hSNORF33 receptor agonist or an antagonist.
Group XX, claims 155-157, to a method of treating an abnormality in a subject by administering a rSNORF33 receptor agonist or an antagonist.
Group XXI, claims 155-157, to a method of treating an abnormality in a subject by administering a mSNORF33

receptor agonist or an antagonist.
The inventions listed as Groups I-XIX do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Pursuant to 37 C.F.R § 1.475 (d), the ISA/US considers that where multiple products and processes are claimed, the main invention shall consist of the first invention of the category first mentioned in the claims and the first recited invention of each of the other categories related thereto. Accordingly, the main invention (Group I)comprises the first-recited product, the isolated human SNORF33 receptor and the nucleic acid molecule encoding it, a vector comprising said nucleic acid molecule, a host cell and a method of producing the encoded polypeptide. Further pursuant to 37 C.F.R § 1.475 (d), the ISA/US considers that any feature which the subsequently recited products and methods share with the main invention does not constitute a special technical feature within the meaning of PCT Rule 13.2 and that each of such products and methods accordingly defines a separate invention.